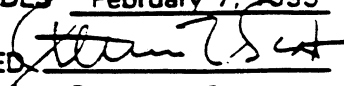
		PROCEDURE NO. <u>HS203</u>
STANDARD PROCEDURE		DATE <u>December 5, 1995</u>
SUBJECT ACCIDENT REPORTING, INVESTIGATION, AND REVIEW		SUPERSEDES <u>February 7, 1995</u> APPROVED  Steven L. Scott

1.0 PURPOSE AND POLICY

1.1 Purpose

This procedure prescribes the requirements for incident reporting, investigation, and review. Key requirements include:

- All injuries, vehicle accidents, and significant near miss incidents must be reported and investigated promptly, to determine root cause and prescribe corrective action.
- OSHA-Recordable injuries and illnesses and chargeable vehicle accidents must be reviewed by the Accident Review Board. The Accident Review Board report is submitted and approved through the chain of management to the President.
- All incidents involving a fatality, multiple injuries, major injury, or major property damage shall be immediately reported to the Group President, Division Vice President, Corporate Environmental Health and Safety Director, and General Counsel.
- All Departments/Sections must submit *Supervisor's Report of Incidents* to Environmental Health and Safety within 24 hours of the injury. (Reports of incidents where no injury occurred are not as time-critical.)

1.2 Policy

It is the policy of EARTH TECH that all accidents resulting in injury or property loss and significant near miss incidents be reported, investigated, and evaluated for the benefit of improving the management of the Company.

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3.0	RESPONSIBILITY MATRIX	
3.1	Procedure Responsibility. The Corporate Director, Environmental Health and Safety is responsible for the issuance, revision, and maintenance of this procedure.	
3.2	Action/Approval Responsibilities. The Responsibility Matrix is Attachment 1 in Section 8.0.	

4.0 DEFINITIONS

Chargeable Vehicle Accident. Any at-fault vehicle accident meeting any one of the following criteria:

1. Any individual sustains an OSHA-recordable injury as a result of the accident
2. An individual other than an employee of EARTH TECH is a party in the accident
3. Property owned by a person or entity other than EARTH TECH is damaged
4. When only EARTH TECH employees, EARTH TECH owned or leased (not rented) vehicles, and EARTH TECH property is involved and damage exceeds \$1000.00.

Company. EARTH TECH, Inc.

Department/Section/Location Manager. The business unit manager of the involved organization. Various parts of the Company are organized in different ways. Small offices sometimes have a section or department number that is the same as the location code. In these small offices, the department or section manager is also the location manager and is also known as the business unit manager. In other small offices, the office is viewed as the branch of a larger department or section. In these cases, the location manager is not the section or department manager. Some of the larger offices hold many sections and departments. The location manager may be a staff manager with no line management responsibility. Regardless of the organization, the intent in this procedure is the Department/Section/Location Manager is at a management level equal to or above the program manager or the project manager.

EHS. Environmental Health and Safety

EHS Professional. A person certified by the American Board of Industrial Hygiene or the Board of Certified Safety Professionals who works to prevent injury or illness.

EHS Staff. A person whose primary work assignment is to prevent injury or illness.

Lost Workday Injury. Cases which involve days away from work or days of restricted work activity or both. Days away from work are: the number of workdays (consecutive or not), excluding the date of injury, the employee would have worked, but could not because of occupational injury or illness; and/or the number of workdays (consecutive or not), excluding the date of injury, on which, because of injury or illness:

1. The employee was assigned to another job on a temporary basis
2. The employee worked at a permanent job less than full time
3. The employee worked at a permanently-assigned job, but could not perform all duties normally connected with it.

Major Injury/Illness. When an employee is hospitalized for more than observation, the injury or illness is considered major.

Major Property Damage. Major property damage has occurred when preliminary loss estimates exceed \$5000.

Near Miss Incident. Any incident where no injury occurred, but where the potential for injury existed. A significant near miss incident is an incident in which tragedy is narrowly averted.

OSHA Recordable Injury. All work-related deaths and illnesses, and those work-related injuries which result in:

1. Loss of consciousness
2. Restriction of work or motion
3. Transfer to another job
4. Require medical treatment beyond first aid (see Attachment 6 in Section 8.0).

5.0 PROCEDURE

5.1 Accident/Injury/Near Miss Report.

All incidents involving a fatality, major injury or illness, or major property damage shall be reported to the Group President, Division Vice President, Corporate Environmental Health and Safety (EHS) Director, General Counsel and the Regional/Divisional EHS Manager as soon as possible, but not later than the close of business on the day of the incident. The Corporate EHS Office will notify the EARTH TECH Medical Director to arrange prompt follow-up with the treating physician regarding lost or restricted workday incidents,

5.1.1 Employee

Reports all injuries, illnesses, accidents, and near miss incidents having the potential for injury to his/her supervisor immediately.

5.1.2 Supervisor

- Arranges appropriate medical care via the EARTH TECH clinic, emergency room, 911, or on site first aid provider, as appropriate.
- Immediately notifies the responsible EHS Professional.
- Completes Form HS203-F1 *Supervisor's Report of Incident* (Attachment 2) as soon as possible, but no later than 24 hours after the incident, and forwards to Manager.
- If employees are injured, notifies the Regional Human Resources Representative to initiate the workers' compensation process.

- Immediately notifies General Counsel and Corporate EHS Director in the event of a fatality or multiple serious injuries.
- Any supervisor with first-hand knowledge of an accident or injury, but preferably the supervisor directly responsible for the involved employees, may accomplish the required reporting.

5.1.3 Manager

- The Department/Section or Program Manager reviews the *Supervisor's Report of Incident*, adds comments, concurrence, clarification, or recommendations to achieve correction, signs in the Manager's block and forwards the form to the Environmental Health and Safety Department within 24 hours of the accident.
- Ensures a copy of the *Supervisor's Report of Incident* for each incident is forwarded to Corporate EHS Director in a timely way so that the OSHA Form 200 *Log of Injuries and Illnesses* is current and accurate. OSHA considers violations of their recordkeeping regulations to be willful with penalties as high as \$70,000 for each infraction.

5.1.4 Environmental Health and Safety Professional

- Ensures necessary information regarding the incident is recorded and reported.
- Reviews, evaluates, and comments on the *Supervisor's Report of Incident*.

5.1.5 Regional/Division EHS Manager

- Serves as EHS Professional when no other EHS Professional is assigned to the organization which sustained the incident.
- Expedites incident reporting by the Supervisor.
- Assists Manager to evaluate processes, procedures, and actions which led to the incident.
- Expedites timely reporting of the incident and coordinates notification to all appropriate levels of management.

5.1.6 Corporate EHS Director

- Classifies the incident and records on the *OSHA Form 200 Log of Injuries and Illnesses* or equivalent form. Attachment 6 includes Injury/Illness Classification Guidelines.
- In the case of a fatality or multiple serious injuries involving five (5) or more employees, confers with General Counsel and CEO, and notifies the OSHA District Office nearest the site of the occurrence on the same business day as the accident, if possible, but in no case longer than 24 hours after the accident.

December 5, 1991

- Notifies the EARTH TECH Medical Director to arrange prompt follow-up with the treating physician regarding lost or restricted workday incidents

5.2 Accident/Injury Investigation.

All injuries, illnesses, property damage accidents, and significant near miss incidents shall be investigated. The level of effort expended for the accident investigation is commensurate with the actual or potential seriousness of the injuries, illnesses, or property damage.

The investigation shall be started immediately after the occurrence and completed as soon as possible, generally within 3-5 days after the occurrence. A written report (optional sample form provided as Attachment 3) is submitted to the Department/Section Manager, with a copy to the Regional/Division EHS Manager and the Corporate EHS Department.

5.2.1 Supervisor

- Take control of investigation once immediate medical care for injured personnel has been accomplished.
- Obtain assistance from the operations/discipline manager, health and safety professional, and others as appropriate, to conduct investigation.
- Collect the facts about the accident, including a descriptive narrative of the conditions which led to the accident.
- Describe and document how the accident occurred. Include sketches, photos, and any relevant documentation.
- Obtain in addition to the above information, reports from external sources, such as police, insurance carriers, testing laboratories, etc. These reports should be obtained as soon as they become available and included in the investigation report.
- List witnesses and collect written statements when possible.
- Identify and discuss the causative factors.
- Identify the unsafe act or unsafe condition that existed at the time of the accident.
- Identify systematic and management deficiencies.
- List the corrective actions to be taken to prevent re-occurrence of this type of accident, the responsible person, and the date by which action is to be completed.

5.2.2 Operations Manager. Provides appropriate manpower to assist in the investigation.

5.2.3 Discipline Manager. Provides appropriate manpower to assist in the investigation.

5.2.4 Regional/Division Environmental Health and Safety Manager.

- Provides guidance to Supervisor to ensure proper conduct of investigation.
- Provides appropriate manpower to assist in the investigation.

5.3 Accident Review Board.

Management review of accidents is the key to prevention of future incidents, and is a key part of each managers responsibility to implement effective health and safety practice.

5.3.1 When to Convene

Each Department/Section/Location Manager who experiences an accident classified as an OSHA recordable, or a chargeable vehicle accident shall convene an accident review board. The actions of the Accident Review Board are more effective the sooner the Board convenes after an accident, providing the involved managers and discipline leaders are available. Convening the Board within 10 days of the incident is a good guideline when practical. The purpose of the board is to review the information gathered for each accident and take appropriate action to prevent recurrence of the accident. Identified action items shall be assigned to appropriate individuals with a schedule of completion. These action items will be tracked, with reports sent to the Group President and/or the Division Vice President as appropriate.

5.3.2 Composition of Board

The Accident Review Board shall be composed of the appropriate members of management and staff, depending on the seriousness of the accident and the management actions likely to be taken to prevent recurrence. Typical Accident Review Boards usually include the Department or Section or Location Manager, the operations or discipline manager and an EHS Staff. When appropriate, a representative of other internal sources of expertise may be requested to sit on the Board.

Accidents which result in actual or potential significant adverse action against the Company shall include a member of the Corporate staff to be included on the Accident Review Board. Accidents resulting in third party fatality, serious injury, or major property loss would be considered to have a significant adverse impact on the Company.

5.3.3 Conduct of Review

The Accident Review Board shall meet with the employee having the accident and his/her supervisor to conduct a detailed review of the accident. The

Accident Review Board examines the documents such as HS203-F1 *Supervisor's Report of Incident*, HS203-F2 *Accident/Injury Investigation*, OSHA Form 101, worker's compensation insurance reports, or police reports to determine the cause and to prevent future accidents. Additional information regarding the accident may be needed and should be added to the record. Note that it is not acceptable to discipline an employee for having an accident. However, when the investigation determines that the accident resulted from a violation of company policy on the employee's part, the employee should be subject to disciplinary action according to EARTH TECH's progressive discipline system.

5.3.4 Accident Review Board Report

The completed Accident Review Board Report Form (Attachment 6) shall be reviewed and signed by the following progression (as appropriate):

- Department/Section/Location Manager
- Regional/Division Environmental Health and Safety Manager
- Division Vice President
- Group President

The Group President will then forward the original to the President of EARTH TECH, with a copies to General Counsel and Corporate EHS Director. The Corporate EHS Director distributes a summary to all EHS Managers.

5.4 Monthly Loss Report.

5.4.1 Regional/Division Environmental Health and Safety Manager.

- Completes and distributes copies of Form HS203-F3 *Monthly Loss Report* (Attachment 5) to Corporate EHS, Group President/Division Vice President, and Department/Section Manager.
- Includes a copy of Form HS203-F1 *Supervisor's Report of Incident* for each incident with the *Monthly Loss Report*.

5.4.2 Regional Human Resources.

- Provides a copy of each workers' compensation claim to Corporate Environmental Health and Safety.
- Provides a copy of the quarterly loss report from the workers' compensation insurance carrier to Corporate Environmental Health and Safety.

5.4.3 Corporate Environmental Health and Safety.

- Provides a copy of the *OSHA Form 200 Log of Injuries and Illnesses* or equivalent form to each location each month.
- Provides copy of Form HS203-F1 *Supervisor's Report of Incident* to Human Resources

6.0 EXCEPTION PROVISIONS

None permitted.

7.0 CROSS REFERENCES

HS105 Record Keeping and Statistical Reports
HS603 Occupational Injury and Illness

8.0 FORMS AND CHECKLISTS

Attachment 1: Responsibility Matrix
Attachment 2: Form HS203-F1 *Supervisor's Report of Incident*
Attachment 3: Form HS203-F2 *Accident/Injury Investigation*
Attachment 4: Form HS203-F3 *Accident Review Board Report*
Attachment 5: Form HS203-F4 *Monthly Loss Report*
Attachment 6: Injury/Illness Classification Guidelines

RESPONSIBILITY MATRIX

Action	Procedure Section	Injured Employee	Employee's Supervisor	Manager	Project/ Location EHS Rep	Regional/ Division EHS Manager	Corporate EHS Director
Reports injury, illness, incident	5.1.1	X	X				
Arrange medical care	5.1.2		X				
File reports	5.1.3		X	X	X	X	
Investigates accident	5.2		X		X		
Notifies OSHA, Medical Director	5.1.5						X
Conducts Accident Review Board	5.3			X			
Submits Monthly Loss Report	5.4		X	X	X	X	
Provides notification to HR	5.4		X				X

Supervisor's Report of Incident

E A R T H



T E C H

This is an official document to be initiated by the injured employee's supervisor. Please answer all questions completely. This report must be forwarded to Health and Safety office within 24 hours of the injury.

Injured's name		S.S.No.	Sex	Birthdate -
Home address		City	State	Zip
Job Title	Section	Hire date	Hourly wage	Phone
Property Damaged				Value
Vehicle		<input type="checkbox"/> Chargeable <input type="checkbox"/> Non-chargeable <input type="checkbox"/> Not at Fault <input type="checkbox"/> DOT		

Supervisor

Date of incident	Time	Time reported	To whom
Client name	Client address		Time shift began
Exact location of incident		Did injured leave work?	When?
Has injured returned to work? <input type="checkbox"/> Yes <input type="checkbox"/> No		Did employee miss a regularly scheduled shift? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Doctor/hospital name		Address	
Witness name		Statements attached <input type="checkbox"/> Yes <input type="checkbox"/> No	
Nature of injury		Body part	
Medical attention			
Job assignment at time of incident			
Describe incident			
What caused the incident?			
What corrective action has been taken to prevent recurrence?			
Supervisor/foreman Print name		Signature	Date

Manager

Comments on incident and corrective action		
Manager Print name	Signature	Date

Environmental Health and Safety

Concur with action taken? <input type="checkbox"/> Yes <input type="checkbox"/> No Remarks:		
OSHA classification		
<input type="checkbox"/> Incident only <input type="checkbox"/> First aid <input type="checkbox"/> No lost work days <input type="checkbox"/> Lost work days <input type="checkbox"/> Restricted activity <input type="checkbox"/> fatality		
Days away from work	Days of restricted work	Total days charged
EHS Professional Print name	Signature	Date

Accident Review Board

E A R T H



T E C H

The Board

Date of Board	Location
Board Member	Board Member
Board Member	Board Member

The Accident

Accident Date	Type
Report Complete: Yes No	Investigation Complete Yes No
Employee Name	Employee Signature
Employee Name	Employee Signature
Supervisor Name	Supervisor Signature
Supervisor Name	Supervisor Signature
Cause of Accident	
Action by Board	

Acceptance and Approval

ACCEPTED Employee Signature	ACCEPTED Supervisor Signature
APPROVED EHS Manager	REJECTED FOR
APPROVED Department/Section Manager	REJECTED FOR
APPROVED Division Manager/Group President	REJECTED FOR

Monthly Loss Report

E A R T H



T E C H

Reporting Period: _____

Report Covers (Group, Division, or Region): _____

Occupational Injuries and Illnesses

Department/Section Name	Dept/Sec. Number	First Aid	OSHA Recordable	Lost Workday Cases	Total Cases

Summary of Occupational Injuries and Illnesses

Employee Name	Dept/Sec. Number	Date of Injury/Illness	Number of Days Lost	Number of Days of Restriction	Description

Summary of Vehicle and General Liability/Property Damage Accidents

Employee Name	Dept/Sec. Number	Date of Accident	Vehicle Identification	Third Party (Y or N)	Description

Report completed by: _____ Date: _____

Distribution:

Corporate EHS
Group President/Division Manager
Department/Section Manager

Injury/Illness Classification Guide

MEDICAL TREATMENT


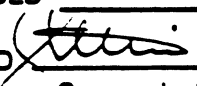
The following are generally considered medical treatment. Work-related injuries that receive this type of treatment are considered OSHA-recordable.

- Treatment of infection
- Application of antiseptics during second or subsequent visit to medical care provider
- Treatment of second or third degree burns
- Application of sutures, stitches, or butterflies in lieu of sutures
- Removal of foreign body imbedded in eye
- Removal of foreign body from wound, if procedure is complicated because of depth of imbedment, size, or location
- Use of prescription medications, except single dose administered on first visit for minor pain or discomfort
- Hypodermic injection, excluding tetanus booster given for prophylaxis
- Use of hot or cold soaking therapy during second or subsequent visit to medical care provider
- Cutting away dead skin or tissue, surgical debridement
- Application of heat therapy during second or subsequent visit to medical care provider
- Use of whirlpool bath therapy during second or subsequent visit to medical care provider
- Positive x-ray diagnosis, including fractures, broken bones, herniation, etc.
- Treatment for an amputation involving loss of bone or function
- Admission to a hospital or equivalent medical care facility for treatment

FIRST AID TREATMENT

The following are generally considered first aid treatment. Work-related injuries that receive only first aid treatment and that do not result in lost time or restricted work activity are usually not OSHA recordable. An injury or illness that results in loss of consciousness, time away from work on days following the day of occurrence, restriction of work or motion, or transfer to another job is always OSHA-recordable.

- Application of antiseptics during first visit to medical care provider
- Treatment of first degree burns
- Application of bandages during any visit to medical care provider
- Use of elastic bandages during first visit to medical care provider
- Removal of foreign bodies not imbedded in eye, if only irrigation is required
- Removal of foreign bodies from wound, if procedure is not complicated, for example, if removal is by tweezers or other simple technique
- Use of non-prescription medications and administration of single dose of prescription medication for the relief of minor pain or discomfort
- Soaking therapy on initial visit to medical care provider or removal of bandages by soaking
- Application of hot or cold compresses during first visit to medical care provider
- Application of heat therapy during first visit to medical care provider
- Use of whirlpool bath therapy during first visit to medical care provider
- Negative x-ray diagnosis
- Observation of injury during visit to medical care provider
- Tetanus booster injection given for prophylaxis

EARTH  TECH		PROCEDURE NO. <u>HS401</u>
STANDARD PROCEDURE		DATE <u>February 1, 1996</u>
SUBJECT HAZARD COMMUNICATION		SUPERSEDES <u>New</u>
		APPROVED  Steven L. Scott

1.0 PURPOSE, POLICY, AND SUMMARY

1.1 Purpose

This procedure presents a program and a system whereby every employee has access to and receives the information about the materials that he/she is working with so that he/she may protect against the hazards presented by the materials.

1.2 Policy

It is the policy of EARTH TECH that every employee shall have the knowledge of the materials that he/she is working with so that he/she will take adequate precautions to prevent harm to him/herself, the community and the environment.

1.3 Summary

This Hazard Communication Program applies to products and commodities which are known to be present in the work place in such a manner that employees may be harmed by an exposure under normal conditions of use or in a reasonably foreseeable emergency resulting from work place operations. This Hazard Communication Program does not apply to articles, food, cosmetics, radioactive materials or waste/hazardous waste. The Hazard Communication Program contains the following elements:

- A person designated to be responsible for the Hazard Communication Program
- An inventory of all products and commodities that are at the workplace in the form of liquids, compressed gasses, powders, granules, pastes, gels, etc.
- Material Safety Data Sheets (MSDS) for all hazardous materials in the workplace
- Training for all employees who work with hazardous materials
- Procedure to ensure all containers of hazardous materials are properly labeled
- Procedure to access and protect proprietary and trade secret information
- Procedure to protect visitors to the workplace

- Procedures for multi-employer work sites
- A written program.

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3.0 RESPONSIBILITY MATRIX

- 3.1 Procedure Responsibility.** The Corporate Director, Environmental Health and Safety is responsible for the issuance, revision, and maintenance of this procedure.
- 3.2 Action/Approval Responsibilities.** The Responsibility Matrix is Attachment 1 in Section 8.0.

4.0 DEFINITIONS

Article. A manufactured item:

- (1) Which is formed to a specific shape or design during manufacture;
- (2) Which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
- (3) Which does not release, or otherwise result in exposure to, a hazardous substance under normal conditions of use or in a reasonably foreseeable emergency resulting from workplace operations.

Blasting Agent. Any material or mixture consisting of a fuel and oxidizer, intended for blasting not otherwise classified as an explosive, provided that the finished product, as mixed and packaged for shipment, cannot be detonated by means of a No. 8 test blasting cap when unconfined.

CAS number. The unique identification number assigned by the Chemical Abstracts Service to specific chemical substances.

Chemical name. The scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the substance for the purpose of conducting a hazard evaluation.

Combustible liquid. Any liquid having a flashpoint at or above 100°F (37.8°C), but below 200°F (93.3°C), except any mixture having components with flashpoints of 200°F (93.3°C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Common name. Any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a substance other than by its chemical name.

Compressed gas. Compressed gas means:

- (A) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70°F (21.1°C); or
- (B) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130°F (54.4°C) regardless of the pressure at 70°F (21.1°C); or
- (C) A liquid having a vapor pressure exceeding 40 psi at 100°F (37.8°C) as determined by ASTM D-323-72.

Container. Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, tank truck, or the like that contains a hazardous substance. For purposes of this section, pipes or piping systems are not considered to be containers.

Designated representative. Any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

Distributor. A business, other than a manufacturer or importer, which supplies hazardous substances to other distributors or to employers.

Emergency. Any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which may or does result in a release of a hazardous substance into the workplace.

Employee. Every person who is required or directed by any employer, to engage in any employment, or to go to work or be at any time in any place of employment.

Employer. Employer means EARTH TECH, Inc.

Explosive. A substance that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Exposure or Exposed. Any situation arising from work operation where an employee may ingest, inhale, absorb through the skin or eyes, or otherwise come into contact with a hazardous substance.

Flammable. A substance that falls into one of the following categories:

(A) **Aerosol, flammable.** An aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;

(B) **Gas, flammable.**

1. A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent of volume or less; or

2. A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit;

(C) **Liquid, flammable.** Any liquid having a flashpoint below 100°F (37.8 °C), except any mixture having components with flashpoints of 100°F (37.8°C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.

(D) **Solid, flammable.** A solid, other than a blasting agent or explosive as defined above, that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

Flashpoint. The minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows:

(A) **Tagliabue Closed Tester** (see American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24-1979 (ASTM D56-79)) for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100°F (37.8°C), that do not have a tendency to form a surface film under test; or

(B) **Pensky-Martens Closed Tester** (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7-1979 (ASTM D 93-79)) for liquids with a viscosity equal to or greater than 45 SUS at 100°F (37.8°C), or that have a tendency to form a surface film under test; or

(C) **Setaflash Closed Tester** (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78)).

Organic peroxides, which undergo autoaccelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.

Hazard warning. Any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the health hazards and physical hazards of the substance(s) in the container(s).

Hazardous substance. Any substance which is a physical hazard or a health hazard.

Health hazard. A substance for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes substances which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B describes the criteria to be used to determine whether or not a substance is to be considered hazardous for purposes of this standard.

Identity. Any chemical or common name which is indicated on the material safety data sheet (MSDS) for the substance. The identity used shall permit cross references to be made among the required list of hazardous substances, the label and the MSDS.

Immediate use. The hazardous substance will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Importer. The first business with employees within the Customs Territory of the United States which receives hazardous substances produced in other countries for the purpose of supplying them to distributors or purchasers within the United States.

Label. Any written, printed, or graphic material displayed on or affixed to containers of hazardous substances.

Manufacturer. A person who produces, synthesizes, extracts, or otherwise makes a hazardous substance.

Material safety data sheet (MSDS). Written or printed material concerning a hazardous substance which is prepared in accordance with section 29 CFR 1910.1200(g).

Mixture. Any solution or intimate admixture of two or more substances, at least one of which is present as a hazardous substance, which do not react chemically with each other.

MSDS means Material Safety Data Sheet, a presentation by the manufacturer of information about the product or commodity prepared in accordance with 29 CFR 1910.1200(g).

NIOSH. The National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services.

February 1, 1996

Organic peroxide. An organic compound that contains the bivalent-O-O-structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer. A substance other than a blasting agent or explosive as defined above, that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Physical hazard. A substance for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Produce. To manufacture, process, formulate, repackage, or relabel.

Pyrophoric. A substance that will ignite spontaneously in air at a temperature of 130°F (54.4°C) or below.

Responsible party. Someone who can provide additional information on the hazardous substance and appropriate emergency procedures, if necessary.

Specific chemical identity. The chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Substance. Any element, chemical compound or mixture of elements and/or compounds.

Trade secret. Any confidential formula, pattern, process, device, information, or compilation of information which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it. A trade secret shall not include chemical identity information which is readily discoverable through qualitative analysis. Appendix D sets out the criteria to be used in evaluating trade secrets.

Unstable (reactive). A substance which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

Use. To package, handle, react, or transfer.

Visitor. Any person, including clients, subcontractors, and fellow EARTH TECH employees, who enter the work area, but are not regularly assigned to the work area.

Water-reactive. A substance that reacts with water to release a gas that is either flammable or presents a health hazard.

Work area. A room or defined space in a workplace where hazardous substances are produced or used, and where employees are present.

Workplace. Any place, and the premises appurtenant thereto, where employment is carried on.

5.0 PROCEDURE

5.1 Responsible Person

5.1.1 Business Unit Manager

Appoints a person, usually the Health and Safety Representative, to be responsible for implementing this Hazard Communication Procedure within the office/shop/lab.

5.1.2 Program Manager

Appoints a person within the program to be responsible for implementing this Hazard Communication Procedure within the program.

5.1.3 Project Manager

Appoints a person within the project, usually the Site Safety Officer, to be responsible for implementing this Hazard Communication Procedure on the project.

5.2 Inventory

5.2.1 Project Inventory

The Project Manager coordinates with the writer of the health and safety plan (HASP) to ensure the HASP contains a list of the hazardous substances (products and commodities) that will be used on the project. The inventory of hazardous substances lists each substance using an identity that is referenced on the appropriate material safety data sheet.

Project employees report to the Project Manager every hazardous material found at the project site which is not on the list of hazardous substances.

5.2.2 Office/Shop/Lab Inventory

The Responsible Person for each office/shop/lab prepares list of hazardous substances used in the office/shop/lab.

Office/shop/lab employees report to the Responsible Person every hazardous material found in the office/shop/lab which is not on the list of hazardous substances.

5.3 Material Safety Data Sheets

5.3.1 Project MSDS File

The Project Manager coordinates with the writer of the health and safety plan (HASP) to ensure the HASP contains a material safety data sheet (MSDS) for each hazardous substance listed.

5.3.2 Office/Shop/Lab MSDS File

The Responsible Person for each office/shop/lab maintains the MSDS file or binder. The Responsible Person requests an MSDS from suppliers and manufacturers to ensure that the MSDS file or binder has an MSDS for each hazardous substance on the inventory. A sample letter to request an MSDS is shown in Attachment 2.

5.3.3 New Information

Whenever a new or revised material safety data sheet is received, such information shall be provided to employees on a timely basis not to exceed 30 days after receipt, if the new information indicates significantly increased risks to, or measures necessary to protect, employee health as compared to those stated on a material safety data sheet previously provided.

5.4 Training

5.4.1 HAZWOPER Training

All HAZWOPER training, including the 40-hour initial training and the 8-hour annual refresher training, includes Hazard Communication training.

5.4.2 Accident Prevention Training

All accident prevention training, injury and illness prevention program training, and safety awareness training includes Hazard Communication training.

5.4.3 Hazard Communication Course Content

Hazard Communication training shall address the following topics:

- (A) The elements and requirements of the OSHA hazard communication standard.
- (B) Tasks and operations where hazardous substances are present.
- (C) The location and availability of the written hazard communication program, including the list(s) of hazardous substances and material safety data sheets.
- (D) The methods and observations that may be used to detect the presence or release of a hazardous substance, such as personal and area monitoring, continuous monitoring devices, visual appearance or odor of hazardous substances when being released, etc.
- (E) The physical and health hazards of the substances in the work area, and the measures they can take to protect themselves from these hazards, including specific procedures implemented for the project or shop to protect employees from exposure to hazardous substances, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

- (F) The project or shop specific details of the hazard communication program, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
- (G) Information regarding hazardous substances to which they may be exposed, according to the provisions of the OSHA hazard communication standard.
- (H) Information for their physician or collective bargaining agent to receive regarding hazardous substances to which the employee may be exposed according to provisions of this section;
- (I) Freedom from discharge or other discrimination due to the employee's exercise of the rights afforded pursuant to the provisions of the Hazardous Substances Information and Training Act.

5.5 Labels

5.5.1 User

Each user shall ensure that each container of hazardous substances in the workplace is labeled, tagged, or marked with the following information:

- (A) Identity of the hazardous substance(s) contained therein; and
- (B) Appropriate hazard warnings.

5.5.2 Receiving

Employees receiving shipments of hazardous substances shall not accept the shipment, but return it to the shipper, if the containers are not properly labeled with the following information:

- (A) Identity of the hazardous substance(s);
- (B) Appropriate hazard warnings; and
- (C) Name and address of the manufacturer, importer, or other responsible party.

Exception to labeling requirement: For solid metal (such as a steel beam or a metal casting) that is not exempted as an article due to its downstream use, the required label may be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes. The label may be transmitted with the initial shipment itself, or with the material safety data sheet that is to be provided prior to or at the time of the first shipment. This exception to requiring labels on every container of hazardous substances is only for the solid metal itself and does not apply to hazardous substances used

conjunction with, or known to be present with, the metal and to which the employees handling the metal may be exposed (for example, cutting fluids or lubricants).

5.6 Trade Secrets

5.6.1 Non-Emergency Access to Trade Secret Information

Each Responsible Person who obtains a material safety data sheet which claims trade secret information forwards a copy of that MSDS to the Corporate Medical Director. The Corporate Medical Director will submit a written request to the supplier explaining the that the information is needed for the following reasons:

- (A) To assess the hazards of the substances to which employees will be exposed;
- (B) To guide appropriate sampling of the workplace atmosphere to determine employee exposure levels;
- (C) To conduct pre-assignment or periodic medical surveillance of exposed employees;
- (D) To provide medical treatment to exposed employees;
- (E) To guide the selection of appropriate personal protective equipment for exposed employees;
- (F) To guide the development of appropriate engineering controls or other protective measures for exposed employees; and,
- (G) To conduct studies to determine the health effects of exposure.

The request includes an agreement to protect the confidentiality of the disclosed information with assurance that the trade secret information will not be used for any purpose other than the health needs asserted.

The Medical Director will provide such information as necessary to conduct an industrial hygiene evaluation of employee exposures to the cognizant EHS Professional. If this involves releasing trade secret information, the EHS Professional signs a nondisclosure agreement before receiving such information.

Employees working with materials protected by trade secret have access to the MSDS which does not have protected information.

5.6.2 Emergency Access to Trade Secret Information

Emergency access to trade secret information is provided through the Corporate Medical Director. Where a physician or nurse determines that a medical emergency exists and the specific chemical identity of a hazardous substance is necessary for

emergency or first-aid treatment, the Corporate Medical Director shall request the manufacturer, importer, or other supplier immediately disclose the specific chemical identity of a trade secret substance, regardless of the existence of a written statement of need or a confidentiality agreement. The manufacturer, importer, or other supplier may require a written statement of need and confidentiality agreement, in accordance with the provisions of OSHA's Hazard Communication standard as soon as circumstances permit.

5.7 Visitors

5.7.1 Escorted Visitors

Visitors to the work area who have not received a hazard communication briefing on the hazardous substances present in the work area must be escorted the entire time they are in the work area to ensure that they are not harmed by the hazardous substances.

5.7.2 Unescorted Visitors

The supervisor must ensure all visitors who enter the work area unescorted receive a hazard communication briefing before encountering any of the hazardous substances in the work area.

5.7.3 Multiemployer Worksites

In multi-employer workplaces, any employer bringing hazardous substances into the work area shall inform all the employers sharing the same work area of the hazardous substances to which their employees may be exposed while performing their work, and any suggestions for appropriate protective measures, and shall provide the following:

- (A) Material safety data sheets
- (B) Any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,
- (C) The labeling system used in the workplace.

5.8 Written Program

5.8.1 Hazard Communication in Health and Safety Plans

Health and Safety Plans (HASP) written for HAZWOPER projects contain all the elements of the Hazard Communication Program. Material safety data sheets for hazardous substances which are brought to the project site are included in an appendix to the HASP. See HS209.

5.8.2 Hazard Communication in Injury and Illness Prevention Programs

The Injury and Illness Prevention Program (IIPP) contains all the elements of the Hazard Communication Program. The hazardous substance inventory and MSDS a

maintained in appendices to the IIPP. See HS201.

5.8.3 Location Specific Hazard Communication Programs

Each EARTH TECH location where hazardous substances are present that does not have a Hazard Communication Program provided by paragraph 5.8.1 or 5.8.2 above, shall develop a hazard communication in accordance with OSHA's hazard communication regulation, this procedure, and HS157 Location-Specific Work Rules. The location-specific hazard communication program must be in writing and contain all the elements of a hazard communication program as shown in paragraph 1.3.

6.0 EXCEPTION PROVISIONS

Variances to this procedure shall be requested in accordance with established variance procedures. See HS109.

7.0 CROSS REFERENCES

HS157 Location-Specific Work Rules
HS201 Injury and Illness Prevention Program
HS209 Health and Safety Plans

8.0 ATTACHMENTS

Attachment 1: Responsibility Matrix
Attachment 2: Sample Request Letter

RESPONSIBILITY MATRIX

Action	Procedure Section	Department/ Section Managers	Project Manager	Responsible Person	Regional/ Division EHS Manager	Corporate Medical Director	Corporate EHS Manager
Issuance, revision and maintenance of this procedure	3.1						X
Designate Responsible Person	5.1	X	X				
Develop and maintain inventory of hazardous substances	5.2		X	X			
Maintain MSDS file	5.3			X			
Provide training	5.4				X		
Ensure labels on containers	5.5	X	X	X	X		
Access trade secret information	5.6					X	
Protect visitors	5.7	X	X				

SAMPLE REQUEST LETTER

Date

Supplier/Manufacturer
Address
City, State Zip

Gentlemen:

OHSA's Hazard Communication regulation requires manufacturers and importers of hazardous substances to prepare and provide material safety data sheets (MSDS). The same regulation requires employers to have MSDS in their workplaces for all hazardous substances.


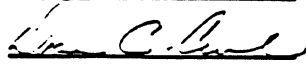
We currently purchase the following products from you:

1. _____
2. _____
- etc.

Please send a completed MSDS for each of the above listed products, or a statement that the product is exempt from the OSHA Hazard Communication regulation.

Very truly yours,

EARTH TECH, Inc.

EARTH  TECH		PROCEDURE NO. <u>HS501</u>
STANDARD PROCEDURE		DATE <u>April 22, 1996</u>
SUBJECT PERSONAL PROTECTIVE EQUIPMENT		SUPERSEDES <u>December 17, 1995</u>
		APPROVED  Diane C. Creel

1.0 PURPOSE AND POLICY

1.1 Purpose

Wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact, EARTH TECH shall provide protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers.

1.2 Policy

It is the policy of EARTH TECH to assess the hazards of every workplace, mitigate those hazards through practical engineering and work practice controls, and provide personal protective equipment to protect employees from residual hazards. EARTH TECH will reimburse the actual cost of personal protective equipment up to \$150 per year per employee for such personal items as footwear and prescription safety glasses. Other items of PPE of a less personal nature, such as hard hats, traffic vests, etc., will be purchased with department operating funds.

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3.0 RESPONSIBILITY MATRIX

- 3.1 Procedure Responsibility.** The Corporate Environmental Health and Safety Director is responsible for the issuance, revision, and maintenance of this procedure.
- 3.2 Action/Approval Responsibilities.** The Responsibility Matrix is shown in Attachment 1 to Section 8.

4.0 DEFINITIONS

The following definitions apply to all requirements of this procedure:

EHS. Environmental Health and Safety

EHS Professional. Environmental Health and Safety Professional, an individual assigned to the Environmental Health and Safety Department who is certified in the practice of either industrial hygiene (CIH) or safety (CSP), or any other individual designated by the Environmental Health and Safety Department Manager.

EHS Staff. A person whose primary work assignment is to prevent injury or illness. A Site Safety Officer is an EHS Staff.

Field Personnel. Field personnel include any employee who performs field work as part of his/her assigned duties.

Field Work. Any work activity occurring outside of an office setting.

HASP. Health and Safety Plan, the site-specific document written in accordance with HS209.

PPE. Personal Protective Equipment, devices worn by the worker to protect against hazards in the environment.

SOW. Statement of Work, a document to describe the work to be performed.

5.0 TEXT

5.1 General

The goal is to prevent harm to the body from hazards in the work environment. The preferred method is to eliminate the source of the hazard. When this is not possible, the next line of defense is stopping, capturing, or containing the hazard at its source. The next fall back is to intercept the hazard along its path to the worker. The last resort is shielding the person with personal protective equipment.

5.1.1 Hazard Determination

Every operation, activity, and task is evaluated by management to determine hazards and potential hazards that may be present that would necessitate the use of personal protective equipment (PPE).

Where hazards derive from exposure to chemical substances, managers seek the assistance of an Environmental Health and Safety (EHS) Professional.

5.1.2 Hierarchy of Controls.

Engineering and work practice controls are used to eliminate the hazard or stop, contain, or capture at the source or intercept it along its path to the worker. When feasible, these controls are preferred to burdening the worker with PPE. Administrative controls are control measures to limit the duration of exposure to the hazard. Generally, administrative controls are not acceptable to control inhalation or direct skin hazards, except when no other control technology is feasible or effective. With the exception of administrative controls to prevent heat-, cold-, or radiation- related illness, the use of administrative controls requires the approval of the Corporate EHS Director.

5.1.3 Routes of Entry.

Various types of PPE are used to prevent the entry of chemical and biological substances through

- Inhalation
- Absorption through intact skin
- Ingestion
- Penetration through break in skin (injection).

5.1.4 Selection

The selection of PPE is based on the hazards identified in the workplace hazard assessment and the activities that will be performed while using the PPE. To assure adequate protection, the selected PPE meets ANSI requirements where standards have been published, such as foot, eye, and head protection, and NIOSH or MSHA requirements for respiratory protection. Corporate EHS maintains comprehensive data to aid in the selection of PPE.

5.1.5 Training

Every worker who is required to use PPE receives training provided by his/her supervisor, with assistance from EHS Professional when requested, which covers the following topics:

- When is PPE necessary
- What PPE is necessary
- How to properly don, doff, adjust, and wear PPE
- The limitations of PPE
- The proper care, maintenance, useful life, and disposal of the PPE.

5.1.6 Maintenance of PPE

After each use, employees inspect all PPE that will be used again. Any item needing maintenance or repair will be identified and removed from service until the maintenance or repair has been completed and the item verified fit for use. Maintenance and repair will use only replacement parts approved by the manufacturer and be conducted in a manner consistent with manufacturer's instructions. Maintenance and repair will restore PPE to a condition meeting original certification (NIOSH, MSHA, ANSI, etc.) or the item will be discarded as not repairable or beyond economical repair.

5.1.7 Loss of protection.

The major reason for loss of protection from PPE results from non-use. Other factors influencing loss of protection include contamination of the PPE, penetration (i.e., rips, tears, holes, etc.), and permeation through the materials of construction. There are many factors influencing non-use of PPE.

Because using PPE is generally less comfortable than not using PPE, workers need to be motivated to use it. Through education and training, workers need to recognize the need for PPE and understand the benefits of using it. Acceptance of PPE is aided by providing sizes and styles that improve fit and comfort. The PPE must be selected with full consideration for the task to be performed while using it.

Non-use of PPE becomes more of a problem when the PPE is not stored in a readily accessible location, handy to the work. No one likes to use PPE that is not clean, dry, and protected from

deterioration. PPE that is difficult to put on or take off will be avoided. To reduce this as an influence for non-use, ease of donning and doffing must be a consideration in the selection of PPE.

5.2 PPE Program Responsibilities

5.2.1 Supervisor of Field Personnel.

- Coordinates with Project/Response Managers to determine the necessary and appropriate personal protective equipment to be permanently assigned to his/her employees.
- Ensures that his/her employees have all appropriate personal protective equipment.
- Conducts periodic inspections of his/her employees' personal protective equipment to ensure it is properly maintained and ready for use.
- Coordinates with Project Manager when conditions require change in PPE or additional training.

5.2.2 Project/Response Manager.

- Ensures that project documents, such as statements of work, health and safety plans, or accident prevention plans, clearly state the required PPE to be used on the project.
- Verifies that personnel assigned to project have completed the appropriate training for the PPE required for the project and maintains copy of training certificate in project file.
- Ensures that personnel working on the project have and use the PPE specified for the assigned tasks.

5.2.3 Environmental Health and Safety Professional.

- Determines hazards through review of Statement of Work (SOW), Work Plan, or other project documents or site visit.
- Ensures workplace hazard assessment has been completed. In accordance with 29 CFR 1910.132, there must be a written certification of the workplace hazard assessment. The form HS501-F1 *Workplace Hazard Assessment* as shown in Attachment 2 in Section 8 of this procedure provides a convenient means to certify the workplace hazard assessment.
- Selects PPE to provide adequate protection for identified hazards. PPE must be compatible with intended activities.
- Communicates selection via project documents (HASP, etc.) to project personnel.

- During the performance of field inspections in accordance with HS205, inspects company and employee owned PPE to assure the adequacy, maintenance, and sanitation of such equipment.
- Audits the use of PPE to assure adequacy and proper use of such equipment.
- Conducts annual evaluation to determine where PPE programs can be improved.

5.2.4 Field Personnel.

- Ensures he/she has all the required PPE for the work assignment. Coordinates with Supervisor to obtain any item that he/she is lacking.
- Ensure PPE fits properly.
- Maintains permanently assigned PPE in sanitary and reliable condition.
- Inspects all PPE that will be used again after each use.
- Repairs or replaces PPE when worn, damaged, or missing.
- Ensures defective and damaged PPE is removed from service.
- Facilitates timely replacement of worn, depleted, and missing items of permanently assigned personal protective equipment to assure reliable operation.
- Properly disposes of all single-use PPE after each use.

6.0 EXCEPTION PROVISIONS

Exceptions to this procedure must be approved by the responsible Environmental Health and Safety Manager with notification to Corporate EHS Director.

7.0 CROSS REFERENCE

HS201 Injury and Illness Prevention Program
HS205 Safety Inspections and Audits
HS503 Respiratory Protection
HS505 Eye Protection
HS507 Foot Protection
HS509 Hand Protection
HS511 Body Protection
HS513 Supplied Air Respirators, including SCBA
29 CFR 1910.132 Personal Protective Equipment

8.0 ATTACHMENTS

Attachment 1: Responsibility Matrix

Attachment 2: Workplace Hazard Assessment Certification HS501-F1

RESPONSIBILITY MATRIX

Action	Procedure Section	Employee	Supervisor	Project Manager	EHS Professional	Corporate EHS Manager
Issuance, revision and maintenance of this procedure	3.1					X
Hazard assessment and determination of need for PPE	5.1		X		X	
Selection of PPE	5.1.5				X	
Issuance of PPE	5.2.1		X	X		
Training	5.1.6					
Maintenance of PPE	5.1.7	X				
PPE program evaluation	5.2.3				X	



WORKPLACE HAZARD ASSESSMENT

I. WORKPLACE IDENTIFICATION

PROJECT NAME	PROJECT NUMBER
LOCATION	
PROJECT MANAGER	
OPERATION/ACTIVITY/TASK DESCRIPTION	

II. REFERENCE AND SOURCES USED FOR HAZARD ASSESSMENT

STATEMENT OF WORK	<input type="checkbox"/>
WORK PLAN	<input type="checkbox"/>
HEALTH AND SAFETY PLAN	<input type="checkbox"/>
SITE VISIT	<input type="checkbox"/>
OTHER	<input type="checkbox"/>


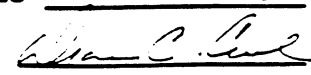
III. CERTIFICATION

I certify that a hazard assessment was performed in accordance with 29 CFR 1910.132 on the workplace here identified on this date.	
NAME	SIGNATURE

MINIMUM STANDARDS OF PERSONAL PROTECTIVE APPAREL

The following are minimum standards of apparel, personal protective equipment, and dress for field activities.

1. Field work not involving chemical or physical hazards; activities not at industrial, manufacturing, or construction locations:
 - Shirt with sleeves
 - Pants, full length
 - Footwear, closed-toe
2. Field work involving equipment, such as drill rigs, field work at construction sites, activities at industrial sites, and activities at manufacturing locations requires, in addition to the above, the following personal protective items:
 - Hard hat (May be optional in industrial and manufacturing settings depending on conditions)
 - Safety toe footwear
 - Safety glasses, cover goggles, or faceshield
3. Where exposure or potential exposure to chemical hazards exist, personal protective equipment shall be selected and used which is appropriate for the work to be done and which will provide adequate protection for the chemical hazard. Chemical protective PPE includes respirators, gloves, aprons, coveralls, overalls, boots, boot covers, etc.
4. Where noise hazards exist or are likely, hearing protectors shall be selected and worn. Hearing protectors shall be selected to be compatible with the rest of the required PPE and the activities to be performed.
5. Where physical hazards exist, such as hot surfaces, sharp objects, vibrating tools, extremely cold surfaces, etc., the personal protective equipment shall be selected and used that is appropriate to hazard, provides adequate protection, and is compatible with the rest of the protective apparel
6. Not acceptable for any field work are the following:
 - Dress, skirt, kilt
 - Tank tops, halter tops, topless, shirtless
 - Slippers, sandals, thongs, flip-flops, go-aheads, "Tijuana specials"
 - Shorts, cut-offs, bathing suit
7. Exceptions to these minimum standards requires the approval of an EHS Professional.

 E A R T H T E C H		PROCEDURE NO. _____ <u>HS505</u>
STANDARD PROCEDURE		DATE _____ <u>April 22, 1996</u>
SUBJECT <div style="text-align: center; padding-top: 10px;">EYE PROTECTION</div>		SUPERSEDES _____ <u>New</u>
		APPROVED  <div style="text-align: right; padding-right: 20px;">Diane C. Creel</div>

1.0 PURPOSE AND POLICY

1.1 Purpose

Sight is the most cherished of the human senses. The protection of our ability to see requires protecting the eyes and face from injury by physical and chemical agents or by radiation. This procedure defines the EARTH TECH vision conservation program.

1.2 Policy

It is the policy of EARTH TECH to assess workplace hazards and provide protective eyewear appropriate to the hazard. The costs associated with obtaining prescription safety spectacles are reimbursable to the employee as part of each individual's personal allowance of \$150 per year for personal protective equipment. (See HS501.)

EARTH TECH reimburses the actual cost of prescription safety spectacles up to a limit of \$150 per year per employee for such personal items as footwear and prescription safety glasses. Non-prescription eye and face protection which is of a less personal nature is provided with department operating funds.

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3.0 RESPONSIBILITY MATRIX

3.1 Procedure Responsibility. The Corporate Environmental Health and Safety Director is responsible for the issuance, revision, and maintenance of this procedure.

3.2 Action/Approval Responsibilities. The Responsibility Matrix is shown in Attachment 1 to Section 8.

4.0 DEFINITIONS

The following definitions apply to all requirements of this procedure:

EHS. Environmental Health and Safety

EHS Professional. Environmental Health and Safety Professional, an individual assigned to the Environmental Health and Safety Department who is certified in the practice of either industrial hygiene (CIH) or safety (CSP), or any other individual designated by the Environmental Health and Safety Department Manager.

EHS Staff. A person whose primary work assignment is to prevent injury or illness. A Site Safety Officer is an EHS Staff.

Field Personnel. Field personnel include any employee who performs field work as part of his/her assigned duties.

Field Work. Any work activity occurring outside of an office setting.

HASP. Health and Safety Plan, the site-specific document written in accordance with HS209.

PPE. Personal Protective Equipment, devices worn by the worker to protect against hazards in the environment.

SOW. Statement of Work, a document to describe the work to be performed.

5.0 PROCEDURE

5.1 General

Employees working in locations where there is a risk of receiving eye injuries such as punctures, abrasions, contusions, or burns as a result of contact with flying particles, hazardous substances, projections or injurious light rays which are inherent in the work or environment, shall be safeguard by means of face or eye protection.

5.1.1 Hazard Determination

Every operation, activity, and task is evaluated by management to determine the need for eye and/or face protection. (See HS201 and HS501.)

Where hazards are of an ergonomic nature, managers seek the assistance of an Environmental Health and Safety (EHS) Professional.

5.1.2 Prescription Eyewear

Where eye protection is required and vision correction is required, such eye protection shall be provided as follows:

- (1) Safety spectacles with suitable corrected lenses, or
- (2) Safety goggles designed to fit over spectacles, or
- (3) Protective goggles with corrective lenses mounted behind the protective lenses.

Contact lenses shall not be worn in working environments having harmful exposure to hydrophilic airborne contaminants, such as formaldehyde or hydrogen chloride.

5.1.3 Maintenance of PPE

Protective eyewear shall be maintained clean and sanitary. The optical quality of the eyewear is as important as the physical protection. Lenses shall be cleaned in a manner to preserve the optical quality. Generally, this means using non-abrasive cleaners. Depending on the degree of soiling, if

rinsing in potable water is insufficient to restore the cleanliness, use a nonabrasive face or dishwashing soap. Cracked, chipped, or scratch lenses must be replaced when the optical quality is degraded or the physical integrity is impaired. Straps, frames, and other parts of the eye protection must be maintained as well.

5.2 Selection

The selection of appropriate eye protection is based on the hazards identified in the workplace hazard assessment and the activities that will be performed.

5.2.1 Mechanical Hazards.

When operating or working near power or hand tools which may produce flying particles, punctures, abrasions, contusions, or mechanical penetration, safety glasses shall be worn which meet the requirements of American National Standard, Practice for Occupational and Educational Eye and Face Protection, Z87.1-1989 for industrial safety eyewear.

When more than one worker in an area is doing eye hazardous work as depicted in the preceding paragraph, all workers in the area shall use eye protection with side protection. Permanent or detachable side protectors (e.g. clip-on or slide-on side shields) are acceptable.

Where there are no hazards of penetrating particles, where workers are not using tools as depicted above, ordinary spectacles meeting the standards for streetwear are sufficient eye protection.

5.2.2 Splash and Liquid Hazards.

Faceshields provide the best protection for splash hazards and shall be used to protect the eyes and face when performing tasks with significant splash hazards, such as pressure washing, cleaning parts with strong and/or hot caustic or acid, working on systems containing hot or strong caustic or acid.

Where there is only minor risk of splash from hot or strong caustic or acid, or when working with cryogenic liquids, a chemical splash cover goggle may be substituted for a faceshield.

5.2.3 Radiant Energy Hazards

Eyes shall be protected from radiant energy hazards, including sunlight reflected off water, snow, or sand, by eyewear of a suitable shade. Protective eyewear for solar radiation, electric arc welding, and ultra-high temperature torches shall protect against ultraviolet radiation as well as visible radiation.

5.3 Vision Conservation Program Responsibilities

5.3.1 Supervisor of Field Personnel.

- Determines the need for and selects the appropriate eye protection.

- Coordinates with Section Manager to ensure the adequate quantities of plano safety glasses and other required eye protection are on hand. Orders additional supplies with department operating funds when necessary.
- Ensures that his/her employees have at a minimum safety glasses.
- Provides plano (non-prescription) safety glasses to those employees who do not wear prescription eyewear.
- Ensures those employees who wear corrective lenses obtain safety glasses meeting ANSI Z87.1-1989 Practice for Occupational and Educational Eye and Face Protection.
- Observes his/her employees to ensure their wearing of eye protection when required.

5.3.2 Project/Response Manager.

- Ensures that project documents, such as statements of work, health and safety plans, or accident prevention plans, clearly identify eye protection requirements.
- Ensures that personnel working on the project have and use the specified eye protection for the assigned tasks.

5.3.3 Section Manager.

- Ensures that adequate supplies of plano safety glasses are available.
- Approves reimbursement of employee purchased prescription safety glasses within the EARTH TECH allowance for employee purchased safety equipment.

5.3.3 Environmental Health and Safety Professional.

- Determines hazards through review of Statement of Work (SOW), Work Plan, or other project documents or site visit.
- Ensures workplace hazard assessment has been completed in accordance with HS501.

5.3.4 Field Personnel.

- If corrective lenses are not needed, obtains from supervisor plano safety glasses.
- If corrective lenses are needed, obtains current ophthalmic prescription at his/her own expense and orders industrial safety glasses from any retail optician.
- Submits receipt with expense claim for reimbursement for the industrial safety glasses. EARTH TECH allows reimbursement of the full price of prescription safety glasses and other

personal protective equipment up to \$150 per year. Employee expenditures for prescription safety glasses and other personal protective equipment exceeding \$150 per year will not be reimbursed.

- Maintains eye protection in a manner that preserves the optical quality and the safety integrity.

6.0 EXCEPTION PROVISIONS

Exceptions to this procedure must be approved by Environmental Health and Safety Manager with notification to Corporate EHS Director.

7.0 CROSS REFERENCE

HS201 Accident Prevention Program
HS209 Health and Safety Plans
HS501 Personal Protective Equipment

8.0 ATTACHMENTS

Attachment 1: Responsibility Matrix

RESPONSIBILITY MATRIX

Action	Procedure Section	Employee	Supervisor	Section/ Project Manager	EHS Professional	Corporate EHS Director
Issuance, revision and maintenance of this procedure	3.1					X
Determination of need for eye protection	5.3.1		X			
Selection of eye protection	5.3.1		X		X	
Issuance of eye protection	5.3.1		X			
Ensuring supplies are on hand	5.3.3			X		
Maintenance of PPE	5.3.4	X				
PPE program evaluation	5.3.3				X	

